

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: H. ANDO et al.
Serial No.: 10/608,335
Filed: June 30, 2003
For: LEARNING CONDITION JUDGING PROGRAM AND USER
CONDITION JUDGING SYSTEM
Group: 3714
Examiner: K. Frisby

REQUEST FOR RECONSIDERATION

MS Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

November 5, 2008

Sir:

In response to the Office Action dated August 5, 2008, setting a period for reply to expire November 5, 2008, reconsideration and withdrawal of the outstanding rejections and allowance of the present application are respectfully requested in view of the following remarks

Remarks begin on page 2.

REMARKS

The present Amendment amends claims 1 and 13, leaves claims 7, 9-12, 14, and 15 unchanged, and adds new claims 16 and 17. Therefore, the present application has pending claims 1, 3, 7 and 9-17.

35 U.S.C. §103 Rejections

I. The Combination of Obrador, Freer, Ho, Atsushi and Zaltman Does Not Teach or Suggest the Features of Claim 1, 13, 14, 16 and 17

Claims 1, 13, 14, 16 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,585,521 to Obrador, in view of U.S. Patent No. 6,402,520 to Freer, further in view of U.S. Patent No. 5,944,530 to Ho et al. ("Ho"), and even further in view of Japanese Publication No. 09-149894: *English Computer Translation from the Patent Abstracts of Japan* to Atsushi, and even further in view of U.S. Patent No. 6,315,569 to Zaltman. This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as clearly recited in claims 1, 13, 14, 16 and 17, are not taught or suggested by either of Obrador, Freer, Ho, Atsushi or Zaltman, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

The claims clearly recite that the present invention is directed to a learning condition program and a system as recited, for example, in independent claims 1 and 13.

The present invention, as recited in claim 1, and as similarly recited in claim 13, provides a learning condition judging program embodied on a computer

readable medium, where the program is executable in an information processing apparatus, and where the program is operable on the information processing apparatus to perform a series of steps. The information processing apparatus starts a learning program in the information processing apparatus, where the information processing apparatus is connected through an information acquiring means to a near infrared measuring device, and is connected to a recording means, an input means and a display means. The information processing apparatus also displays learning contents within a predetermined window on the display means. The information processing apparatus further continuously acquires, as the learning program progresses, measurement information of a blood flow rate in a brain of a user of the information processing apparatus, where the measurement information is obtained from the near infrared measuring device through the information acquiring means. Also, the information processing apparatus acquires input information and operation information given by the user to the information processing apparatus through the input means, where the input information and the operation information indicate progress of the learning program. Further, the information processing apparatus acquires audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information processing apparatus. Furthermore, the information processing apparatus analyzes a rate of change in hemoglobin concentration from the blood flow rate. Further, the information processing apparatus judges, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the

audio information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Even further, the information processing apparatus records the degree of concentration of the user and the attention information of the user with the progress of the learning program in the recording means. The prior art does not teach or suggest all of these features.

The above described features of the present invention, as clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either of Obrador, Freer, Ho, Atsushi or Zaltman, whether taken individually or in combination with each other.

Obrador teaches video indexing based on viewers' behavior and emotion feedback. However, there is no teaching or suggestion in Obrador of the learning condition judging program or the system as recited in claims 1 and 13 of the present invention.

Obrador discloses a method and a corresponding apparatus for video indexing based on viewers' behavior and emotion feedback to automatically index a multimedia sequence using viewers' casual feedback while watching the multimedia sequence. The method and apparatus use a system, such as an emotion detection system that includes one or more multimedia acquisition devices, such as video cameras, to detect viewers' behavior and emotion feedback, and to produce as video indices various categories of behavior and emotion segments. Each video

camera may include one or more image sensors and/or audio sensors. The viewers or other users may later selectively view the multimedia sequence by browsing through the video indices of various categories of emotion. The video indices are similar to chapters within digital video disc (DVD) movies that enable a user to jump directly to a particular chapter without having to fast forward.

Features of the present invention, as recited in claim 1, and as similarly recited in claim 13, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information processing apparatus, and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the audio information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Obrador does not disclose this combination of features.

For example, Obrador does not teach or suggest judging whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time, and as best as can be determined, the Examiner does not appear to rely upon Obrador for teaching this feature.

As described in column 3, line 36 to column 4, line 44, Obrador merely discloses where an emotion detection system 100 uses one or more multimedia acquisition devices to capture emotions and behaviors of users. The captured emotions and behaviors are categorized and indexed. Different video indices may be generated by different users according to the users' preference. For example, one user may watch "funny" segments of a video sequence, whereas another user may watch "astonished" segments of the same video sequence. This is not the same as the present invention, where it is determined whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claim 13, includes recording the degree of concentration of the user and the attention information of the user with the progress of the learning program in the recording means. Obrador does not disclose this feature, and the Examiner does not rely upon Obrador for teaching this feature.

Therefore, Obrador fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said information processing apparatus" and "judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program

is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time" as recited in claim 1, and as similarly recited in claim 13.

Furthermore, Obrador fails to teach or suggest "recording said degree of concentration of the user and said attention information of the user with said progress of said learning program in said recording means" as recited in claim 1, and as similarly recited in claim 13.

The above noted deficiencies of Obrador are not supplied by any of the other references of record, namely Freer, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador and Freer in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

Freer teaches an electroencephalograph based biofeedback system for improving learning skills. However, there is no teaching or suggestion in Freer of the learning condition judging program or the system as recited in claims 1 and 13 of the present invention.

Freer discloses an apparatus that uses electrical activity of the brain to control a series of low-stimuli educational exercises displayed on a computer monitor to increase a variety of educational components. The education components include: time on-task; visual tracking; short-term memory; visual discriminatory processing; auditory discriminatory processing; and focus. The exercises are governed by real-time analysis of the focus and processing states of the user. Specific relative exercise performance data are collected and recorded

from the use of each of the educational components to demonstrate improvement over time of the user in each of the sited educational components.

Features of the present invention, as recited in claim 1, and as similarly recited in claim 13, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information processing apparatus, and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the audio information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Freer does not disclose this combination of features.

For example, Freer does not teach or suggest judging whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time.

To support the assertion that Freer teaches this feature, the Examiner merely asserts, without any citations to support the assertion, that "Freer teaches starting a learning program (starting a low-stimuli educational exercise) and displaying learning contents within a predetermined window on said display means." However, this is not the same as the present invention, which determines whether a degree of concentration of the user of the learning program is higher than a predetermined

degree by using the measurement information of the blood flow rate and the attention information.

Furthermore, as described in column 6, lines 37-45, Freer merely teaches where brain wave activity of the user may be measured, and where beta waves activity may be used as a direct indication of the levels of attention (focus) and cognitive processing of a user. This is not the same as the present invention, which determines whether a degree of concentration of the user of the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claim 13, includes recording the degree of concentration of the user and the attention information of the user with the progress of the learning program in the recording means. Freer does not disclose this feature.

To support the assertion that Freer teaches this feature, the Examiner merely asserts, without any citations to support the assertion, that "Freer teaches starting a learning program (starting a low-stimuli educational exercise) and displaying learning contents within a predetermined window on said display means." However, this is not the same as the present invention, where the degree of concentration of the user and the attention information of the user is recorded with the progress of the learning program in the recording means.

Therefore, Freer fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a

camera connected to said information processing apparatus” and “judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time” as recited in claim 1, and as similarly recited in claim 13.

Furthermore, Freer fails to teach or suggest “recording said degree of concentration of the user and said attention information of the user with said progress of said learning program in said recording means” as recited in claim 1, and as similarly recited in claim 13.

The above noted deficiencies of Obrador in view of Freer are not supplied by any of the other references of record, namely Ho, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador, Feer and Ho in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

Ho teaches a learning method and system that considers a student's concentration level. However, there is no teaching or suggestion in Ho of the learning condition judging program or system, as recited in claims 1 and 13 of the present invention.

Ho discloses a computer-aided-educational method and system that considers a student's concentration level when teaching the student. The system monitors automatically more than once the student's concentration-sensitive

behavior while the student is working on the study materials. Through monitoring the student's volitional or involuntary behavior, the system provides an indication on the student's concentration level. Based on the indication, the system reacts accordingly. Reactions include, for example, providing rewards, punishments, and stimulation, or changing the study materials. The system can also react by asking the student a question to stimulate the student or to assess the student's level of understanding. Based on the student's response, the system may change to more appropriate study materials, or a more appropriate presentation style.

Features of the present invention, as recited in claim 1, and as similarly recited in claim 13, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information processing apparatus, and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the audio information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Ho does not disclose this combination of features, and the Examiner does not rely upon Ho for teaching this combination of features.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claim 13, includes recording the degree of concentration of the

user and the attention information of the user with the progress of the learning program in the recording means. Ho does not disclose this feature, and the Examiner does not rely upon Ho for teaching this feature.

Therefore, Ho fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said information processing apparatus" and "judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time" as recited in claim 1, and as similarly recited in claim 13.

Furthermore, Ho fails to teach or suggest "recording said degree of concentration of the user and said attention information of the user with said progress of said learning program in said recording means" as recited in claim 1, and as similarly recited in claim 13.

The above noted deficiencies of Obrador in view of Freer, further in view of Ho, are not supplied by any of the other references of record, namely Atsushi, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador, Freer, Ho and Astushi in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

Atsushi teaches a living body input device and living body controller using an optical living body measurement method. However, there is no teaching or suggestion in Atsushi of the learning condition judging program or the system, as recited in claims 1 and 13 of the present invention.

Atsushi discloses a device and method for measuring localized brain functions to control a computer, a game, an environment controller, a learning level judgment device, a vehicle alarm, medical diagnostic and alarm devices, a lie detector, an intention display device, and an information transmitter, etc. The device includes an optical brain function measurement device, which is attached to a user by use of optical fibers for irradiation and convergence. The head part transmission light intensity of respective measurement areas measured by the optical brain function measurement device is input to an arithmetic unit. The arithmetic unit uses the head part transmission light intensity of the respective measurement areas and the absorption coefficient of oxidized and reduced hemoglobin stored in a storage device to determine output signals. The output signals are input to an external device, which performs an operation corresponding to the type of signal input to the external device.

Features of the present invention, as recited in claim 1, and as similarly recited in claim 13, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information processing apparatus, and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the audio

information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Atsushi does not disclose this combination of features, and the Examiner does not rely upon Atsushi for teaching this combination of features.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claim 13, includes recording the degree of concentration of the user and the attention information of the user with the progress of the learning program in the recording means. Atsushi does not disclose this feature, and the Examiner does not rely upon Atsushi for teaching this feature.

Therefore, Atsushi fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said information processing apparatus" and "judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time" as recited in claim 1, and as similarly recited in claim 13.

Furthermore, Atsushi fails to teach or suggest "recording said degree of concentration of the user and said attention information of the user with said

progress of said learning program in said recording means" as recited in claim 1, and as similarly recited in claim 13.

The above noted deficiencies of Obrador in view of Freer, further in view of Ho, and even further in view of Atsushi, are not supplied by any of the other references of record, namely Zaltman, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador, Freer, Ho, Atsushi, and Zaltman in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

Zaltman teaches a metaphor elicitation technique with physiological function monitoring. However, there is no teaching or suggestion in Zaltman of the learning condition judging program or the system as recited in claims 1 and 13.

Zaltman discloses a process and apparatus for using a metaphor elicitation technique in conjunction with physiological function monitoring to elicit, organize and analyze data pertaining to a research topic. The metaphor elicitation technique process and apparatus is improved with the acquisition of data related to a user's physiological functioning. This data provides further insight and understanding, which can be used in creating an appropriate marketing campaign for a product, improving inter-office communications and determining the presence of pre-existing biases or beliefs.

Features of the present invention, as recited in claim 1, and as similarly recited in claim 13, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the information

processing apparatus, and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when the audio information includes predetermined audio information, whether a degree of concentration of the user to the learning program is higher than a predetermined degree by using the measurement information of the blood flow rate and the attention information to determine that the user is in concentration time. Zaltman does not disclose this combination of features, and the Examiner does not rely upon Zaltman for teaching this combination of features.

Another feature of the present invention, as recited in claim 1, and as similarly recited in claim 13, includes recording the degree of concentration of the user and the attention information of the user with the progress of the learning program in the recording means. Zaltman does not disclose this feature, and the Examiner does not rely upon Zaltman for teaching this combination of features.

Therefore, Zaltman fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said information processing apparatus" and "judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time" as recited in claim 1, and as similarly recited in claim 13.

Furthermore, Zaltman fails to teach or suggest "recording said degree of concentration of the user and said attention information of the user with said progress of said learning program in said recording means" as recited in claim 1, and as similarly recited in claim 13.

Each of Obrador, Freer, Ho, Atsushi and Zaltman suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Obrador, Freer, Ho, Atsushi and Zaltman in the manner suggested by the Examiner does not render obvious the features of the present invention as clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 1, 13, 14, 16 and 17 as being unpatentable over Obrador in view of Freer, further in view of Ho, even further in view of Atsushi, and yet even further in view of Zaltman, are respectfully requested.

II. The Combination of Obrador, Ho, Atsushi and Zaltman Does Not Teach or Suggest the Features of Claims 3, 7 and 9-12

Claims 3, 7 and 9-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Obrador in view of Ho, further in view of Atsushi, and even further in view of Zaltman. This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as clearly recited in claims 1, 3, 7 and 9-14, are not taught or suggested by Obrador, Ho, Atsushi or Zaltman, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

The claims clearly recite that the present invention is directed to a learning condition judging program as recited, for example, in independent claim 3.

The present invention, as recited in claim 3, provides a learning condition judging program embodied on a computer readable medium, where the program is executable on a computer, and where the program operates on the computer to perform various steps. The computer acquires concurrently, through input means, information of contents executed in a connected terminal, information of a blood flow rate in a brain of a user of the terminal, and operation information and input information given by the user to the terminal. The computer also analyzes a rate of change in hemoglobin concentration from the blood flow rate. The computer further acquires audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the terminal. Furthermore, the computer judges a degree of concentration of the user to the information of contents using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information. Further, the computer displays the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents. The prior art does not teach or suggest all of these features.

The above described features of the present invention, as clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either of Obrador, Ho, Atsushi, or Zaltman, whether taken individually or in combination with each other.

As previously discussed, Obrador teaches video indexing based on viewers' behavior and emotion feedback. However, there is no teaching or suggestion in Obrador of the learning condition judging program as recited in claim 3 of the present invention.

Features of the present invention, as recited in claim 3, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the terminal, and judging a degree of concentration of the user to the information of contents using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information. Obrador does not disclose this combination of features, and the Examiner does not rely upon Obrador for teaching this combination of features.

Another feature of the present invention, as recited in claim 3, includes displaying the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents. Obrador does not disclose this feature, and the Examiner does not rely upon Obrador for teaching this feature.

Therefore, Obrador fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said terminal" and "judging a degree of concentration of said user to said information of contents using said analyzed rate of change in

hemoglobin concentration at a corresponding time and said attention information" as recited in claim 3.

Furthermore, Obrador fails to teach or suggest "displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents" as recited in claim 3.

The above noted deficiencies of Obrador are not supplied by any of the other references of record, namely Ho, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador and Ho in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

As previously discussed, Ho teaches a learning method and system that considers a student's concentration level. However, there is no teaching or suggestion in Ho of the learning condition judging program, as recited in claim 3 of the present invention.

Features of the present invention, as recited in claim 3, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the terminal, and judging a degree of concentration of the user to the information of contents using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information. Ho does not disclose this combination of features.

For example, Ho does not teach or suggest judging a degree of concentration of the user to the information of contents using the analyzed rate of

change in hemoglobin concentration at a corresponding time and the attention information.

To support the assertion that Ho teaches this feature, the Examiner asserts, citing column 11, lines 6-8, that "Ho teaches displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents." However, neither the cited text, nor any other portion of Ho teaches or suggests the claimed invention.

As described in column 11, lines 6-8, Ho discloses where an indication of a student's concentration can be printed in a report indicating the student's degree of concentration in study materials for a period of time. This is not the same as the present invention, where a degree of concentration of the user to the information of contents is determined using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information.

Another feature of the present invention, as recited in claim 3, includes displaying the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents. Ho does not disclose this feature.

To support the assertion that Ho teaches this feature, the Examiner asserts, citing column 11, lines 6-8, that "Ho teaches displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents." However, neither the cited text, nor any other portion of Ho teaches or suggests the claimed invention.

As described in column 11, lines 6-8, Ho discloses where an indication of a student's concentration can be printed in a report indicating the student's degree of concentration in study materials for a period of time. This is not the same as the present invention, where the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents are displayed.

Therefore, Ho fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said terminal" and "judging a degree of concentration of said user to said information of contents using said analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information" as recited in claim 3.

Furthermore, Ho fails to teach or suggest "displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents" as recited in claim 3.

The above noted deficiencies of Obrador in view of Ho are not supplied by any of the other references of record, namely Atsushi, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador, Ho and Atsushi in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

As previously discussed, Atsushi teaches a living body input device and living body controller using an optical living body measurement method. However, there

is no teaching or suggestion in Atsushi of the learning condition judging program executable in an information processing apparatus and a system for judging a learning condition, as recited in claim 3 of the present invention.

Features of the present invention, as recited in claim 3, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the terminal, and judging a degree of concentration of the user to the information of contents using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information. Atsushi does not disclose this combination of features, and the Examiner does not rely upon Atsushi for teaching this combination of features.

Another feature of the present invention, as recited in claim 3, includes displaying the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents. Atsushi does not disclose this feature, and the Examiner does not rely upon Atsushi for teaching this feature.

Therefore, Atsushi fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said terminal" and "judging a degree of concentration of said user to said information of contents using said analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information" as recited in claim 3.

Furthermore, Atsushi fails to teach or suggest "displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents" as recited in claim 3.

The above noted deficiencies of Obrador in view of Ho, and further in view of Atsushi are not supplied by any of the other references of record, namely Zaltman, whether taken individually or in combination with each other. Therefore, combining the teachings of Obrador, Ho, Atsushi and Zaltman in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as clearly recited in the claims.

As previously discussed, Zaltman teaches a metaphor elicitation technique with physiological function monitoring. However, there is no teaching or suggestion in Zaltman of the learning condition judging program as recited in claim 3.

Features of the present invention, as recited in claim 3, include acquiring audio or video information of the user of the information processing apparatus so as to obtain attention information of the user through at least one of a microphone and a camera connected to the terminal, and judging a degree of concentration of the user to the information of contents using the analyzed rate of change in hemoglobin concentration at a corresponding time and the attention information. Zaltman does not disclose this combination of features, and the Examiner does not rely upon Zaltman for teaching this combination of features.

Another feature of the present invention, as recited in claim 3, includes displaying the degree of concentration of the user and the attention information of the user with corresponding time of the information of contents. Zaltman does not

disclose this feature, and the Examiner does not rely upon Zaltman for teaching this feature.

Therefore, Zaltman fails to teach or suggest "acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said terminal" and "judging a degree of concentration of said user to said information of contents using said analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information" as recited in claim 3.

Furthermore, Zaltman fails to teach or suggest "displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents" as recited in claim 3.

Each of Obrador, Ho, Atsushi and Zaltman suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Obrador, Ho, Atsushi, and Zaltman in the manner suggested by the Examiner does not render obvious the features of the present invention as clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 3, 7 and 9-12 as being unpatentable over Obrador in view of Ho, further in view of Atsushi, and even further in view of Zaltman are respectfully requested.

III. The Combination of Obrador, Freer, Ho, Atsushi, Zaltman and Shpiro Does Not Teach or Suggest the Features of Claim 15

Claim 15 stands rejected under 35 C.F.R. §103(a) as being unpatentable over Obrador, in view of Freer, further in view of Ho, even further in view of Atsushi, yet even further in view of Zaltman, and still even further in view of U.S. Patent Application Publication No. 2002/0150869 to Shpiro. This rejection is traversed for the following reasons.

Claim 15 is dependent on claim 1. Therefore, claim 15 is allowable for at least the same reasons previously discussed regarding independent claim 1.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1, 3, 7 and 9-17.

In view of the foregoing amendments and remarks, Applicants submit that claims 1, 3, 7 and 9-17 are in condition for allowance. Accordingly, early allowance of claims 1, 3, 7 and 9-17 is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the

deposit account of Mattingly, Stanger, Malur & Brundidge, P.C., Deposit Account
No. 50-1417 (referencing Attorney Docket No. 500.42880X00).

Respectfully submitted,

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